

RICHARD E. JENKINS  
JEFFREY L. WILSON  
ARLENE M. SKORD, JR.

DAVID P. GLOEKLER  
GREGORY A. HUNT  
JOHN A. LAMERDIN, Ph.D.  
E. ERIC MILLS  
JULIE A. BROADUS, Ph.D. (PATENT AGENT)  
OF COUNSEL:  
JENNIFER L. SKORD

01-24-02  
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O3CO*

JENKINS & WILSON, P.A.

PATENT ATTORNEYS  
SUITE 1400 UNIVERSITY TOWER  
3100 TOWER BOULEVARD  
DURHAM, NORTH CAROLINA 27707

TELEPHONE (919) 493-8000  
FACSIMILE (919) 419-0383

WEBSITE  
JENKINSANDWILSON.COM

RALEIGH OFFICE

NCSU CENTENNIAL CAMPUS  
VENTURE II SUITE 400  
920 MAIN CAMPUS DRIVE  
RALEIGH, NORTH CAROLINA 27606

TELEPHONE (919) 424-3710  
FACSIMILE (919) 424-3711

January 22, 2002

"Express Mail" mailing number: EV023030535US

Date of Deposit 1/22/02

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 on the date indicated above and is addressed to the Commissioner of Patent and Trademarks, Washington, D.C.

Gwynette L. Moore

*Gwynette L. Moore*

U.S. Patent and Trademark Office  
BOX SEQUENCE  
P.O. Box 2327  
Arlington, Virginia 22202

Re: U.S. Patent Application Serial No. 09/954,773 for SOYBEAN SUDDEN DEATH SYNDROME RESISTANT SOYBEANS, SOYBEAN CYST NEMATODE RESISTANT SOYBEANS AND METHODS OF BREEDING AND IDENTIFYING RESISTANT PLANTS  
Our File No. 1268/2/2

Sir:

Please find enclosed the following:

1. A Response to Notice to Comply with Requirements for Patent Applications Containing Nucleotide and/or Sequence Disclosures and Related Amendment (2 pages);
2. Substitute Sequence Listing in paper (15 pages) and computer readable form;
3. Statement That Sequence Listing and Computer Readable Copy are the Same;
4. Copy of Notice to Comply with Requirements for Patent Applications Containing Nucleotide and/or Sequence Disclosures and Related Amendment and Raw Sequence Listing Data Report; and
5. A return-receipt postcard to be returned to our offices with the U.S. Patent and Trademark filing stamp thereon.

Commissioner for Patents  
January 22, 2002  
Page 2

Please contact our offices if there are any questions.

Although it is believed that no fee is due, the Commissioner is hereby authorized to charge any deficiencies of payment associated with the filing of this correspondence to Deposit Account No. 50-0426.

Respectfully submitted,

JENKINS & WILSON, P.A.



Arles A. Taylor, Jr.  
Registration No. 39,395  
Customer No. Bar Code Label:

AAT/ajm

Enclosures



25297

PATENT TRADEMARK OFFICE

'Express Mail' mailing number: EV023030535US  
Date of Deposit: / /  
I hereby certify that this paper and all papers and fees referred  
to herein are being deposited with the United States Postal  
Service "Express Mail Post Office to Addressee" service under  
7 C.F.R. 1.10 on the date indicated above and is addressed to the  
Commissioner for Patents, Washington, D.C. 20231



Gwynette L. Moore

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Lightfoot et al.

Group Art Unit: 1638

Serial No.: 09/954,773

Examiner: M. Kimball

Filed: September 18, 2001

Docket No.: 1268/2/2

For: SOYBEAN SUDDEN DEATH SYNDROME RESISTANT SOYBEANS,  
SOYBEAN CYST NEMATODE RESISTANT SOYBEANS AND  
METHODS OF BREEDING AND IDENTIFYING RESISTANT PLANTS

\* \* \* \* \*

RESPONSE TO NOTICE TO COMPLY WITH REQUIREMENTS  
FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE AND/OR  
SEQUENCE DISCLOSURES AND RELATED AMENDMENT

U.S. Patent and Trademark Office  
BOX SEQUENCE  
P.O. Box 2327  
Arlington, Virginia 22202

Sir:

This is responsive to the Notice to Comply dated November 20, 2001, having a 2-month term that expires on January 20, 2002. January 20, 2002 is a Sunday and Monday, January 21, 2002 is a federal holiday, and thus, the deadline is extended to Tuesday, January 22, 2002. A copy of the Notice is enclosed. Favorable reconsideration is respectfully requested in view of the following Remarks and substitute Sequence Listing submitted under 37 C.F.R. § 1.821-1.825.

AMENDMENTS

Please delete the Sequence Listing on pages 101-110, and replace the same with the substitute Sequence Listing attached hereto.

REMARKS,

*Status Summary*

A substitute Sequence Listing is enclosed herewith as a paper copy and as a computer-readable form (CRF - floppy disk). The contents of the paper

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and computer readable copies are identical. A statement to the same effect is also enclosed. The substitute Sequence Listing has been amended to explain the use of n residues in the Sequence Listing of the subject application as originally filed. No new matter is introduced in the substitute Sequence Listing.

Thus, applicants believe this Response places the subject application into compliance with the requirements of 37 C.F.R. 1.821-1.825. Applicants respectfully request that the substitute Sequence Listing be entered into the subject application.

DEPOSIT ACCOUNT

Although it is believed that no fee is due, the Commissioner is hereby authorized to charge any deficiencies of payment associated with the filing of this correspondence to Deposit Account No. 50-0426.

Respectfully submitted,  
JENKINS & WILSON, P.A.

Date: 01-22-2002

By:

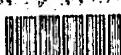
*Arles A. Taylor, Jr.*  
Arles A. Taylor, Jr.  
Registration No. 39,395

Suite 1400 University Tower  
3100 Tower Boulevard  
Durham, North Carolina 27707  
Telephone: (919) 493-8000  
Facsimile: (919) 419-0383

1268/2/2 AAT/JB/ajm

Enclosures:

Substitute paper copy of Sequence Listing (15 pages)  
Statement That Sequence Listing and Computer Readable Copy are the Same  
CRF Sequence Listing (diskette)  
Transmittal letter  
Copy of Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures  
Postcard



25297

PATENT TRADEMARK OFFICE

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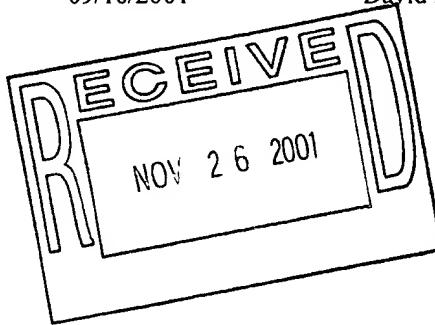
## UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
 UNITED STATES PATENT AND TRADEMARK OFFICE  
 WASHINGTON, D.C. 20231  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
09/954,773	09/18/2001	David A. Lightfoot	1268/2/2

O P E R A T I O N S  
 JAN 22 2002  
 25297-5  
 JENKINS & WILSON, PA

1000 TOWER BLVD  
 SUITE 1400  
 DURHAM, NC 27707



CONFIRMATION NO. 8934  
 FORMALITIES LETTER



\*OC000000007100962\*

Date Mailed: 11/20/2001

**NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS  
 CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE  
 DISCLOSURES**

Applicant is given **TWO MONTHS FROM THE DATE OF THIS NOTICE** within which to file the items indicated below to avoid abandonment. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

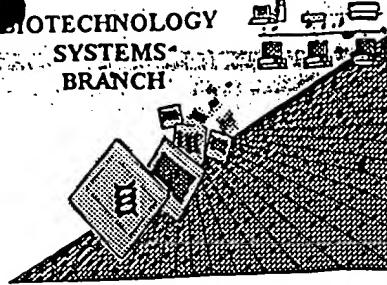
**For questions regarding compliance to these requirements, please contact:**

- For Rules Interpretation, call (703) 308-4216
- To Purchase PatentIn Software, call (703) 306-2600
- For PatentIn Software Program Help, call (703) 306-4119 or e-mail at [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or [patin3help@uspto.gov](mailto:patin3help@uspto.gov)

*A copy of this notice **MUST** be returned with the reply.*

Customer Service Center  
 Initial Patent Examination Division (703) 308-1202  
 PART 1 - ATTORNEY/APPLICANT COPY

## RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/954773

Source: OIPE

Date Processed by STIC: 10/09/01

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

### Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:  
<http://www.uspto.gov/web/offices/pac/checker>

## Raw Sequence Listing Error Summary

<u>ERROR DETECTED</u>	<u>SUGGESTED CORRECTION</u>	<u>SERIAL NUMBER:</u> <u>09/954773</u>
<b>ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISII "ALPIIA" HEADERS, WHICH WERE INSERTED BY PT</b>		
1 <input type="checkbox"/> Wrapped Nucleic Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 <input type="checkbox"/> Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 <input type="checkbox"/> Misaligned Amino Numbering	The numbering under each 3 <sup>rd</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4 <input type="checkbox"/> Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 <input type="checkbox"/> Variable Length	Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 <input type="checkbox"/> PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 <input type="checkbox"/> Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID.NO where "X" is shown) This sequence is intentionally skipped	
8 <input type="checkbox"/> Skipped Sequences (NEW RULES)	Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.	
9 <input checked="" type="checkbox"/> Use of n's or Xaa's (NEW RULES)	Sequence(s) _____ missing. If Intentional, please insert the following lines for each skipped sequence: <210> sequence id number <400> sequence id number 000	
10 <input type="checkbox"/> Invalid <213> Response	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents	
11 <input type="checkbox"/> Use of <220>	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or Artificial Sequence	
12 <input type="checkbox"/> PatentIn 2.0 "bug"	Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
13 <input type="checkbox"/> Misuse of n	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	

"n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.



**RAW SEQUENCE LISTING**  
**PATENT APPLICATION: US/09/954,773**

DATE: 10/09/2001  
TIME: 08:45:40

Input Set : A:\2seqlist.app  
Output Set: N:\CRF3\10092001\I954773.raw

3 <110> APPLICANT: Lighfoot, David A.  
4 Gibson, Paul T.  
5 Merkem, Khalid  
7 <120> TITLE OF INVENTION: Soybean Sudden Death Syndrome Resistant Soybeans,  
8 Soybean Cyst Nematode Resistant Soybeans and Methods of  
9 Breeding and Identifying Resistant Plants  
11 <130> FILE REFERENCE: Sou Illinois 1268/2 Sequence Listing  
C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/954,773  
C--> 14 <141> CURRENT FILING DATE: 2001-09-18  
16 <150> PRIOR APPLICATION NUMBER: 60/035,335  
17 <151> PRIOR FILING DATE: 1997-01-14  
19 <160> NUMBER OF SEQ ID NOS: 20  
21 <170> SOFTWARE: PatentIn Ver. 2.0

## ERRORED SEQUENCES

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690 <211> LENGTH: 801  
691 <212> TYPE: DNA  
692 <213> ORGANISM: Glycine max  
694 <400> SEQUENCE: 9

*Mutant enu*

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696 ttcgtcgacc tcgaggggatc acgctaatacg tatatttata atcaactgct tcaatagagt 120  
697 gcacacaccc tatctttcat aaaattacta cacttttaa tttttgtaat aaaaaaccta 180  
698 gaaaaactca ttatgaaaca gatgatgtac tttaacact ctgtcggct ctctctct 240  
699 attatatatt gatttaaatt tattgagaat tatattttt 600  
700 tttattaaatt ggatccgggc cctctagatg cggccgcatg cataagctt agtattctat 360  
701 agtgtcacct aaatagctt gctgtatcat ggtcatagct gtttcctgt tgaaattgtt 420  
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E--> 703 cctaattgagt gagctaactc acattaattt ctttgcgtc actgcccgtc ttccagtcng 540  
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E--> 706 cgcgaaacggt atcancncac tcnaangnn taaatacggt tatccaccna accnngggga 720  
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710 <210> SEQ ID NO: 10  
711 <211> LENGTH: 809  
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713 <213> ORGANISM: Glycine max  
715 <400> SEQUENCE: 10

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718 tcttgactt ttaacttta agtcataactc cctttggact catatataag caaaagagt 180  
719 gtcttgtatg tcggacttaa atataagcaa atctaactaa tttgtcccta ttaataactt 240  
720 tcattcccaa aacacccttc attaattct aattctattt ccaataactc ttttttattc 300  
721 atqataacaa gttccaatga aggacattt agaaataacc ttatTTTta tttgagatta 360

Exercises  
Must enumerate  $n'$

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/954,773

DATE: 10/09/2001  
TIME: 08:45:40

Input Set : A:\2seqlist.app  
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 E--> 724 cttttaatt catcttgct gcataanctac ttagctactg tgctctgttc cggccctct 540  
 725 agatgcggcc gcatgcataa gcttgagttt ctatagtgtc cctaaatagc ttggcgatc 600  
 E--> 726 atggtcatacg ctgttccng tggaaattt ttatccgttc acaattccac acaacatacg 660  
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 739 agaggggctg attttggaga aaacatcatc catggataa agtccgttta gattccagct 180  
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 743 gcacaaacta aacaaaatgtt tggattttt gacataaaaaa ataccaatgc tggatggaaa 420  
 E--> 744 taagaaatgg tggcatata gacaagtttc ttttctgtttt tctttaaattt gcagtcnaag 480  
 E--> 745 ccatcangag gttcatgtaa ttaaccaaac tagacgttga cttttgggtttt tatttttttgc 540  
 746 tagaatagca agcaagtcat tataaatctg gccattggga cagcttagtt taactcccgc 600  
 E--> 747 cggaaattt taaaatattt naataataat atcacctaaa atcatattttt tcanttcatt 660  
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 E--> 749 ggacccaaaaa aattatcaaa tacnttnaag ctttttttattt tattaattaa ncctttaattt 780  
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 753 <211> LENGTH: 777  
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 766 aaaaatttttttgc ctcacacataa aaacacgtaa agttatgtt ttgttattt atttttttttgc 540  
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RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/954,773

DATE: 10/09/2001  
TIME: 08:45:40

Input Set : A:\2seqlist.app  
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E--> 781 nncnnttca tantnatttt tccttaggtt ttattncaa aantaaaa ttntattant 240  
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E--> 788 ttgccagccc cctaaccnn ccccttcgc ttctccct cttttctcg cncttcgccc 660  
E--> 789 ggntcccn caagcnctaa atcggggctc ctttaggtt tccnaattaa ttgctttacg 720  
E--> 790 gccctccacc caaaaactt gataagggtt atggtcnct tctggggcnn ccccn 775  
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793 <211> LENGTH: 796  
794 <212> TYPE: DNA  
795 <213> ORGANISM: Glycine max  
797 <400> SEQUENCE: 14  
E--> 798 acntgattca ccaagctatn taggtgacta tagaataactc aagcttatgc atgcggccgc 60  
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800 aaagaagcat ataatacatt ttagtacatt tgtgaatatt ggtactccct ttggactcgt 180  
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802 ttactaatct caaataaaaaa ataagggtat ttctaaaatg tccttcattt gaacttggta 300  
803 tcatgaataaa aaaagagttt ttggaaatag aattagaatt aaatgaaggg ttttttagga 360  
804 atgaaagttt taaataggac aaaatttagtt agatttgctt atatttaagt ccgacataca 420  
E--> 805 agaccactct ttgcctata tatgagtcca aaggaggat gacttaaaat tnnaagtnc 480  
806 aagatgatat tacagtagct accaacataa aaagatccct cgagggtcgac gaattcgagc 540  
807 tcggccgact tggccaaattc ccctatagtg agtgcattt caattcactg gcccgtt 600  
E--> 808 tacaacgtcn tgactggaa aacctgggt tccccactta tcgccttgcgac gcacatcccc 660  
E--> 809 ttgcgcncn tggcgtnnta caaaaaggc cgacccgatc gcccctccn acagttgccc 720  
E--> 810 cancctgaat ggcgaatgg acccccctgt taccggccca tttaaaccnn gnnggggtt 780  
E--> 811 gtggtnccc cncccn 796  
813 <210> SEQ ID NO: 15  
814 <211> LENGTH: 782  
815 <212> TYPE: DNA  
816 <213> ORGANISM: Glycine max  
818 <400> SEQUENCE: 15  
819 attacgccaa gctatttaggt gacactataa aatactcaa gcttatgcat gcggccgc 60  
820 ctagagggcc cggatctttt attaaaaatt taatttagtc tcttaattt taaaatgttt 120  
821 aattaaatca tcaatttata aaaaaatca accatatcct ttattgtta aacattata 180  
822 attatgctct ttcaccaac tctgttagt taattgatag aagttttgtt aatagatatt 240  
823 ttacataat ataaataatc ttttacata tattgcagcc aatgtaaaat attatcttt 300  
824 tacattcatt gctttgatg taaaaatattt ttgtttaca tatgttgtt tgacaataaa 360  
825 tataaaaaata ttatattttt tcaatttagt taatgactg atgatgaaaa agatataatt 420  
826 ataataatttt taataattag agaatttgat tgaactttt aataattaaa aaattaaatg 480  
827 aatttttaat tataattaaa gggattaatt atataatataa gcttaatgt atttataatt 540  
E--> 828 ttgggtgtcc ncattaaatataaaaaggta tgtaagtaaa aaataataat taatattaca 600  
829 taaacaaaat aaaatgacaa tattatttgg tgatattt attaataattt taaacaaaattt 660

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E--> 830 ncngcggagt taactaaagc tgcataatgg ncagattata atgactgcct gcatttctnc 720  
E--> 831 aaaaggataa aacaaaagtc cacgtcttagt ttgggtaaat acatgaacct ccngaatggc 780  
832 tt  
834 <210> SEQ ID NO: 16  
835 <211> LENGTH: 801  
836 <212> TYPE: DNA  
837 <213> ORGANISM: Glycine max  
839 <400> SEQUENCE: 16  
840 acatgattac acaagctatt taggtgacat atagaatact caagttatg catgcggccg 60  
841 catctagagg gcccggatcg cccttcccaa cagttgcgc gcctgaatgg cgaatggacg 120  
842 cggccctgttag cgccgcattt aegcggccgg gtgtgggt tacgcgcagc gtgaccgcta 180  
843 cacttgccag cgcccttagcg cccgcttct tcgctttctt cccttcctt ctgcacgt 240  
844 tcgccccgtt tccccgtcaa gctctaaatc gggggctccc tttaggggtc cgatttagtg 300  
E--> 845 ctttacggca cctcgacccc aaaaaacttg attagggtga tggttacgt antggccat 360  
E--> 846 cgccctgata gacngttttt cggcccttta ctttggagtc cacgttctt aatagtggac 420  
847 tcttggttcca aactgaaca acactcaacc ctatctcggt ctattcttt gatttataag 480  
E--> 848 ggattttgcc gatttcggcc tattggtaaa aaaaatgagct gatttacaa aaatttnacg 540  
E--> 849 cgaattttaa caaaaatatt aacgcttacn atttctgtat ncgttatttt ctcccttacnc 600  
E--> 850 atctgtncgg tatttccacc gcatatggtg cactctaat acaatctgtt ctgatccnca 660  
E--> 851 taatttaanc cancccgaa acccgcccaa cacccttaa aacccctta acgggcttgt 720  
E--> 852 ntgctccgg catccgtta acaaanaaac tttaaacgt ntcccgaaac ncatntttt 780  
E--> 853 naaagtttc acccnctcc c 801  
855 <210> SEQ ID NO: 17  
856 <211> LENGTH: 798  
857 <212> TYPE: DNA  
858 <213> ORGANISM: Glycine max  
860 <400> SEQUENCE: 17  
E--> 861 acatgattac gccaagctat taggtgacac tatanaatac tcaagttat gcatgcggcc 60  
862 gcatctagag gcccggatc gccccttccaa acagttgcgc agcctgaatg gcaatggac 120  
E--> 863 gcccctgtta gcccgcattt aagcgcggcg ggtgtgggtt acgcncan cgtagccgt 180  
864 acacttgcca gccccttagc gcccgtctt ttcgctttctt cccttcctt ttcgcacgt 240  
865 ttcgcggct tccccgtca agtctaaat cgggggtctcc tttaggggtt ccgatttagt 300  
E--> 866 gctttacggc acctcnaccc cnaaaaactt gattagggtg atggttcacg tattggcc 360  
E--> 867 tcncctgtat agacagttt tcgccccttg acgttgaggcc acgttctttaatattgga 420  
868 ctttggttcca aactgaaca acactcaacc ctatctcggt ctattcttt gatttataag 480  
E--> 869 ggattttgcc natttcggcc natngttaa aaaaatgagct natttacna aaatttaacg 540  
E--> 870 cgaattttaa caaaaatattt aanccttacaa tttctnatg cgggttatttt ctcccttacnc 600  
E--> 871 atctgtgcgg tattttacaa ccgcataatgg tgcctctaa ttacnanntg ctctgaatgc 660  
E--> 872 cgcataattt aaaccaacnc ngaaanccn tccaannacc cncttaancg cccccaacgg 720  
E--> 873 gttgnctgc cccngcatcc cttannaaac aacttttaac cttctcctgg aacttcnntt 780  
E--> 874 tttnaaaggt ttccnncc 798  
876 <210> SEQ ID NO: 18  
877 <211> LENGTH: 796  
878 <212> TYPE: DNA  
879 <213> ORGANISM: Glycine max  
881 <400> SEQUENCE: 18  
E--> 882 acggntntg aatngttatt taggtgacac tatagaaata ctcaagctta tgcattgcggc 60  
E--> 883 cgcataatgtt gggccggat ccacccgtc ttccactgtt cgttactacg cgacatcnc 120  
884 ggccctccac caccctgaca agatacttgg ccattggat tcaataacccca tcagcctgtc 180

RAW SEQUENCE LISTING  
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Input Set : A:\2seqlist.app  
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885 ccacgtccct ttgttattct ggactctaaa ctgcacctct catcatctcc gccaaacaaa 240  
E--> 886 ctcgtcctcg tacagtggac gggccaaccc cctgaggata ctacctggga gccntggta 300  
E--> 887 gaaatncctn acctttacca cctcnaggac aagtggcct cnccggcgac ngtattgatn 360  
E--> 888 acngttaccc ggaagatacc cagattgagc ccccacttac taagacnaag cccaaacgtt 420  
E--> 889 cccctcnaga cctgcttctt gaatgactac nanactgact cnangaagaa gctccaacca 480  
E--> 890 ttngttncn aagttattag ggtngttacc caattagttt agaacgttnt tccgttgaaa 540  
E--> 891 aggctcatgt tacccccctc ncnnntttt aatncttcaa tanatnatta agaaggcctg 600  
E--> 892 cnnnaggta cntactccc tccccnctct ctanatttcc tntangaagc tgccttcccc 660  
E--> 893 cnaaatttagg ggcattctc ttcccttccc gtctttcac tcccctctgc tcttatcnng 720  
E--> 894 aattcnccctt gatnaacccc cgggttttng gatanaattg aattnacccc ccttcttgaa 780  
E--> 895 aanagaagtt ttttcn 796  
897 <210> SEQ ID NO: 19  
898 <211> LENGTH: 808  
899 <212> TYPE: DNA  
900 <213> ORGANISM: Glycine max  
902 <400> SEQUENCE: 19  
E--> 903 acggcagtga ntgtaatncg actcaactata gggcgaattt gccaagtcgg ccgagctcg 60  
904 attcgtcgcac ctcgagggat cgccgaagta tcgactcaac tatcagaggt agtggcgtc 120  
E--> 905 atcgagcgcc atctcgaacc gacgttgcgt gccgtacatt tgcgttgatn cgcngtggat 180  
E--> 906 ggcggcctga agccacacng tgatattgtt ttgctggta cngtggaccgt aaggcttgat 240  
E--> 907 gaaacnacgc ggcgagctt gatccacnat gcccacnatn nagagtagac cagaatctaa 300  
E--> 908 cacnaatcnc attgtcngat ataacnaaat gcttttaac acgagtgctt cccctnacan 360  
E--> 909 tggtagattt gagcccanct cccttctcaa tgatacatnc aggatgaacn nttgacatn 420  
E--> 910 nctccaccna tttggagtc tcatgcacca ccacattccc ncagttatgtt tgaaggtcnt 480  
E--> 911 tggccngttc ctttananaa atattctcc gcnnttcag gttgantctc attccnnaaa 540  
E--> 912 atatatcccc ttgtcattt ccatctncaa ttcntnctgt tngaaagaac nttgcttcc 600  
E--> 913 agcattcttc ccaaancnat ttttngaaaa ccctctgtt tcnaagaaat tggttcanc 660  
E--> 914 tccattctn tccattccna aggggttctt ccactttaac cccgnatnan caaccaaggg 720  
E--> 915 gaattgaaaaa aacggaaaaag gaaaaaaaaat nggcctact tncaaggaa nggcccccc 780  
E--> 916 tcaagnaaat ttncaaagaa gnanaanaa 808  
918 <210> SEQ ID NO: 20  
919 <211> LENGTH: 787  
920 <212> TYPE: DNA  
921 <213> ORGANISM: Glycine max  
923 <400> SEQUENCE: 20  
E--> 924 ngncgacgcc ngtgnatgac cactataggg cgaattggcc aagtcggcc agctcgaatt 60  
925 cgtcgaccc gagggatcta tatataaggct tgcttaagggt agagagagga agactagaga 120  
E--> 926 ttggatcna caatccaaat aacaaagagt tnaccagaat cnaacacaaa tcncattgtc 180  
E--> 927 ngatataaca aaatgtttt taacacaggt gttcacata acagtgttag atttgagccc 240  
E--> 928 aactccttc tcaatgatac atccnggatg gaccaatttg acatgcata ccnatttggc 300  
E--> 929 agtctcatgc acaaccacat ttcccacant atgtntgang gtcattggcc ngttactaa 360  
E--> 930 ganaattatt cctccccagt tcangtngag tctcantccn naaatatagt ccctttgtcc 420  
E--> 931 nattccntc tnaaattcctt cctgtggaaa gaccattgca tncagcttc tatcngaaac 480  
E--> 932 aatatttggaa aaccctctg ttttccaaga aatnngtgc cnctcnattc tntccatac 540  
E--> 933 cnaagggttc atccagttt ccctgattag ancnaagg agtggaaana ccggaaagg 600  
E--> 934 aaaaaatng gcnaacttcc aaggaaggcc cctccntrnag aaaatttga gagagagaga 660  
E--> 935 agagttcctt naccttgc tgcctcnnta tattantcc gtnttatncc cnccanggtg 720  
E--> 936 gttaccnaan ctttccnc cnaatacngt ctnactaatt tggtaactacc cncccccnn 780  
E--> 937 gtaccaan 787

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Input Set : A:\2seqlist.app  
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L:13 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:286 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:287 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:288 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:289 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:290 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:291 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:292 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:341 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:342 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:343 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:386 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:413 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:419 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:420 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:528 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:529 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:530 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:531 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:533 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:534 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:535 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:536 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:589 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:590 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:591 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:683 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:685 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:686 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:695 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:9  
M:340 Repeated in SeqNo=9  
L:716 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:10  
M:340 Repeated in SeqNo=10  
L:737 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:11  
M:340 Repeated in SeqNo=11  
L:758 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:12  
M:340 Repeated in SeqNo=12  
L:778 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:13  
M:340 Repeated in SeqNo=13  
L:798 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:14  
M:340 Repeated in SeqNo=14  
L:828 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:15  
M:340 Repeated in SeqNo=15  
L:845 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:16  
M:340 Repeated in SeqNo=16

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L:861 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:17  
M:340 Repeated in SeqNo=17  
L:882 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:18  
M:340 Repeated in SeqNo=18  
L:903 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:19  
M:340 Repeated in SeqNo=19  
L:924 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:20  
M:340 Repeated in SeqNo=20